

Message

From: Tita LaGrimas [Tita.LaGrimas@tradebe.com]
Sent: 9/23/2017 12:42:52 AM
To: Valentino, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=29ccd101653e4a5fae2273a9ae9f7bd0-MValenti]
Subject: Re: the char question

Just a clarification Sir!
 Respectfully,
 Tita

Sent from my iPhone

On Sep 22, 2017, at 7:34 PM, Valentino, Michael <Valentino.Michael@epa.gov> wrote:

Thanks Tita, very helpful! I appreciate the correction.

Michael

From: Tita LaGrimas [mailto:Tita.LaGrimas@tradebe.com]
Sent: Friday, September 22, 2017 1:35 PM
To: Valentino, Michael <Valentino.Michael@epa.gov>
Subject: RE: the char question

Thank you Sir, a comment with reference to "ash", In the last paragraph it's stated, "**PBI / Ex. 4**

PBI / Ex. 4

PBI / Ex. 4

Char can be

produced under pyrolysis apart from burning, i.e., combustion where oxygen is present at concentrations greater than the minimum oxygen content (MOC) for a given hydrocarbon. The presence of char does not necessarily mean that incineration or thermal destruction of hazardous waste is taking place."

Tradebe's comment: Ash, by definition is the solid remains of a fire or combustion -there has to be high concentrations of oxygen. Pyrolysis is the decomposition of organic materials in the absence of oxygen or under low oxygen.

Respectfully,
 Tita

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From: Tita LaGrimas
Sent: Wednesday, September 20, 2017 9:37 AM
To: Valentino, Michael <Valentino.Michael@epa.gov>
Subject: Re: the char question

Good morning,

Thank you Sir, yes your response is in line with our past and current response. Our email will be coming shortly.

Respectfully,
Tita

Sent from my iPhone

On Sep 20, 2017, at 9:06 AM, Valentino, Michael <Valentino.Michael@epa.gov> wrote:

Tita,

While waiting to see the response from your technical people I've put further thought into the char question. I think the following probably is pretty close to what I'd expect from Sergio.

Still looking forward to hearing from your folks.

Thanks,
Michael

Thermal desorption drives volatile and semi-volatile constituents from a liquid or solid via direct or indirect heating for the purposes of capturing the liberated vapors and rendering the feedstock (as in the case of Tradebe's SDS) or soil matrix (as in the case of how the technology was employed at Superfund sites) virtually free of contaminants or hazardous constituents.

Incineration is a combustion process that is irreversible and which oxidizes hydrocarbons to form, under ideal conditions, CO₂ and H₂O vapor. Tradebe's dry distillation process drives off hydrocarbons in an indirectly heated rotating drum. The feedstock never encounters a direct flame.

In low temperature thermal desorption and pyrolysis, there is no "combustion zone," as this is a term used to define the area where hydrocarbons, when mixed with combustion air (oxygen source), contact the flame and are heated to temperatures high enough to break them down to combustion products.

Therefore, there are differences between incineration and thermal desorption, and more specifically, between incineration and pyrolysis under an oxygen-deprived atmosphere.

PBI / Ex. 4